

Abstract of the Disclosure

Isolated telomeres from the linear chromosome of an *Agrobacterium tumefaciens* are obtainable from a restriction enzyme fragment at the end of said chromosome which is less than 4,000 nucleotide bases and comprises a segment of consecutive nucleotide bases having substantial identity to SEQ ID NO: 1 or SEQ ID NO: 2. The isolated telomeres are obtained by removing more or less of the segment from the larger restriction fragment. Pairs of isolated and distinct telomeres obtained from opposite ends of the linear chromosome are used for linear DNA constructs for use in producing transgenic plants by *Agrobacterium tumefaciens* transformation. Such constructs act as linear plasmids and comprise at least an origin of replication and terminal regions obtained from telomeres.